

## CLAIMS

We claim:

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AT 1. An inflatable life vest comprising, in combination:  
a vest constructed from a polyester mesh material and including a rear portion and a front portion halved by a central slit, the slit having a zipper formed thereon for allowing the selective coupling of the halves of the front portion with a lip coupled along the central slit adjacent the zipper with a pile fastener mounted thereon for releasably coupling to another pile fastener mounted on an opposite half of the front portion of the vest adjacent the central slit, the vest further comprising a collar extending upwardly from a rear portion of a neck opening formed in the vest;

a plurality of cargo pockets coupled to a lower extent of both halves of the front portion of the vest, each pocket having a lid coupled along a top edge thereof with a pile fastener situated thereon for releasably coupling with another pile fastener situated on a front face of the pocket;

an inflatable bladder comprising a rear portion with a generally rectangular configuration and a pair of front portions each with a generally square configuration, the front portions coupled along rear edges thereof to the rear portion thereby defining a neck aperture, a top surface of the bladder having pile fasteners coupled thereto for releasably coupling with a plurality of pile fasteners positioned on an interior of the vest, wherein the front and rear portions of the bladder reside in an upper half of the vest;

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an air actuation mechanism including a mounting assembly attached to the top surface of one of the front portions of the inflatable bladder and situated within the vest, the mounting assembly including a threaded opening in communication with the inflatable bladder thereby equipped for releasably receiving a cylindrical pressurized air canister, a valve slidably situated above the threaded opening with a pin coupled to a bottom surface thereof and a spring situated between the valve and the threaded opening, the valve having a first unbiased orientation wherein the pin sits distant the threaded opening and a second biased orientation wherein the pin resides within the threaded opening for effecting the release of air from the pressurized air canister, the mounting assembly further including a lever pivotally attached to the mounting assembly and adapted to transfer the valve to the second biased orientation upon the pivoting thereof;

an automatic air actuator including a motor coupled to the mounting assembly and an interconnection member having a first end eccentrically coupled to the motor and a second end attached to the lever, the motor adapted to pivot the lever of the mounting assembly upon the actuation thereof, the automatic air actuator further including a water switch adapted to actuate the motor upon the detection of water;

a manual air actuator including a pull cord having a first end coupled to the lever of the mounting assembly and a second end extending through an aperture formed in the vest with a handle coupled thereto, whereby the pull cord is adapted to pivot the lever of the mounting assembly upon the pulling thereof; and

a manual pump having a hemispherical configuration with a planar surface mounted to one of the front portions of the inflatable bladder on a half of the front portion of vest opposite the air actuation mechanism, the manual serving inflating the bladder upon the repeated depression thereof.

2. An inflatable life vest comprising:

a vest;

an inflatable bladder situated within the vest;

an air actuation mechanism including a mounting assembly attached to a top surface of one of the front portions of the inflatable bladder and situated within the vest, the mounting assembly including a threaded opening in communication with the inflatable bladder for releasably receiving a cylindrical pressurized air canister and a valve slidably situated above the threaded opening with a pin coupled to a bottom surface thereof and a spring situated between the valve and the threaded opening, the valve having a first unbiased orientation wherein the pin sits distant the threaded opening and a second biased orientation wherein the pin resides within the threaded opening for effecting the release of air from the pressurized air canister, the mounting assembly further including a lever pivotally attached to the mounting assembly and adapted to transfer the valve to the second biased orientation upon the pivoting thereof; and

an automatic air actuator including a motor means coupled to the mounting assembly and in communication with the lever, the motor adapted to pivot the lever of the mounting assembly upon the

actuation thereof, the automatic air actuator further including a water switch adapted to actuate the motor upon the detection of water.

3. An inflatable life vest as set forth in claim 2 and further including a manual air actuator including a pull cord having a first end coupled to the lever of the mounting assembly and a second end with a handle coupled thereto, whereby the pull cord is adapted to pivot the lever of the mounting assembly upon the pulling thereof.

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4. An inflatable life vest as set forth in claim 2 and further including a manual pump for inflating the bladder upon the repeated depression thereof.

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5. An inflatable life vest as set forth in claim 2 wherein the vest is constructed from a polyester mesh material.

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6. An inflatable life vest as set forth in claim 2 wherein the vest includes a rear portion and a front portion halved by a central slit.

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7. An inflatable life vest as set forth in claim 5 wherein the slit has a zipper formed thereon for allowing the selective coupling of the halves of the front portion with a lip coupled along the central slit adjacent the zipper with a pile fastener mounted thereon for releasably coupling to another pile fastener mounted on an opposite half of the front portion of the vest adjacent the central slit.

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8. An inflatable life vest as set forth in claim 2 wherein the vest includes a collar extending upwardly from a rear portion of a neck opening formed in the vest.

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9. An inflatable life vest as set forth in claim 2 wherein the vest includes a plurality of cargo pockets coupled to a lower extent of both halves of the front portion of the vest.

10. An inflatable life vest comprising:

a vest;

an inflatable bladder situated within the vest;

an air actuation mechanism including a mounting assembly attached to a top surface of one of the front portions of the inflatable bladder and situated within the vest, the mounting assembly including a threaded opening in communication with the inflatable bladder for releasably receiving a cylindrical pressurized air canister and a valve slidably situated above the threaded opening with a pin coupled to a bottom surface thereof and a spring situated between the valve and the threaded opening, the valve having a first unbiased orientation wherein the pin sits distant the threaded opening and a second biased orientation wherein the pin resides within the threaded opening for effecting the release of air from the pressurized air canister, the mounting assembly further including a lever pivotally attached to the mounting assembly and adapted to transfer the valve to the second biased orientation upon the pivoting thereof; and

a manual air actuator including a pull cord having a first end coupled to the lever of the mounting assembly and a second end with a handle coupled thereto, whereby the pull cord is adapted to pivot the lever of the mounting assembly upon the pulling thereof.

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